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#1AF/2127
PATENT
03/15/04
2205

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Babka et al.

Serial No.: 09/389,201

Art Unit: 2127

Filed: September 2, 1999

Examiner: Tang

For: STATUS DISPLAY FOR PARALLEL ACTIVITIES

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MAR 12 2004

Technology Center 2100

Mail Stop Appeal Brief - Patents

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

TRANSMITTAL OF APPEAL BRIEF
(PATENT APPLICATION - 37 CFR 1.192)

1. Transmitted herewith in triplicate is the APPEAL BRIEF in this application with respect to the Notice of Appeal filed on January 12, 2004.

NOTE: "The appellant shall, within 2 months from the date of the notice of appeal under § 1.191 in an application, reissue application, or patent under reexamination, or within the time allowed for response to the action appealed from, if such time is later, file a brief in triplicate." 37 CFR 1.192(a) (emphasis added).

2. STATUS OF APPLICANT

This application is on behalf of

☒ other than a small entity☐ small entity

verified statement:

☐ attached☐ already filed

3. FEE FOR FILING APPEAL BRIEF

Pursuant to 37 CFR 1.17(f) the fee for filing the Appeal Brief is:

☐ small entity \$165.00☒ other than a small entity \$330.00

Appeal Brief fee due \$330.00

CERTIFICATE OF MAILING (37 CFR § 1.8)

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to Mail Stop Appeal Brief-Patents, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Date:

3-4-04

Toni Stanley

(Type or print name of person mailing paper)

(Signature of person mailing paper)

(Page 1 of 3)

4. EXTENSION OF TERM

NOTE: The time periods set forth in 37 CFR 1.192(a) are subject to the provision of § 1.136 for patent applications. 37 CFR 1.191(d). Also see Notice of November 5, 1985 (1060 O.G. 27).

The proceedings herein are for a patent application and the provisions of 37 CFR 1.136 apply.

(complete (a) or (b) as applicable)

- (a) ☐ Applicants petition for an extension of time under 37 CFR 1.136 (fees: 37 CFR 1.17(a)-(d)) for the total number of months checked below:

Extension (months)	Fee for other than small entity	Fee for small entity
<input type="checkbox"/> one month	\$ 110.00	\$ 55.00
<input type="checkbox"/> two months	\$ 420.00	\$ 210.00
<input type="checkbox"/> three months	\$ 950.00	\$ 475.00
<input type="checkbox"/> four months	\$ 1,480.00	\$ 740.00
Fee		\$ _____

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If an additional extension of time is required, please consider this a petition therefor.

(check and complete the next item, if applicable)

- ☐ An extension for _____ months has already been secured and the fee paid therefor of \$ _____ is deducted from the total fee due for the total months of extension now requested.

Extension fee due with this request \$ _____

or

- (b) ☒ Applicants believe that no extension of term is required. However, this conditional petition is being made to provide for the possibility that applicants have inadvertently overlooked the need for a petition and fee for extension of time.

5. TOTAL FEE DUE

The total fee due is:

Appeal Brief fee \$330.00

Extension fee (if any) \$0.00

TOTAL FEE DUE \$330.00

6. FEE PAYMENT

- ☐ Attached is a check in the sum of \$ _____

- ☒ Charge Account No. 09-0447 (AT9-99-357) the sum of \$330.00.

A duplicate of this transmittal is attached.

7. FEE DEFICIENCY

NOTE: If there is a fee deficiency and there is no authorization to charge an account, additional fees are necessary to cover the additional time consumed in making up the original deficiency. If the maximum, six-month period has expired before the deficiency is noted and corrected, the application is held abandoned. In those instances where authorization to charge is included, processing delays are encountered in returning the papers to the PTO Finance Branch in order to apply these charges prior to action on the cases. Authorization to charge the deposit account for any fee deficiency should be checked. See the Notice of April 7, 1986, 1065 O.G. 31-33.

- ☒ If any additional extension and/or fee is required, this is a request therefor and to charge Account No. 09-0447 (AT9-99-357).

AND/OR

- ☒ If any additional fee for claims is required, charge Account No. 09-0447 (AT9-99-357).

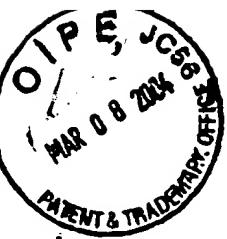
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7047-P335US 03/04/2004



AT9-99-357

PATENT

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03/15/04

- 1 -

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of:	:	Before the Examiner:
Babka et al.	:	Kenneth Tang
Serial No.: 09/389,201	:	Group Art Unit: 2127
Filed: September 2, 1999	:	IBM Corporation
	:	IP Law Department
	:	Internal Zip 4054
Title: STATUS DISPLAY	:	11400 Burnet Road
FOR PARALLEL ACTIVITIES	:	Austin, Texas 78758

APPEAL BRIEF

Mail Stop Appeal Brief - Patents
Commissioner for Patents
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Dear Sir:

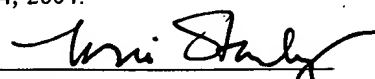
This Appeal Brief is being submitted pursuant to 37 C.F.R. § 1.192.
Appellant is furnishing herewith three (3) copies of this brief.

I. REAL PARTY-IN-INTEREST

The real party-in-interest is International Business Machines Corp., who is the assignee of the entire right and interest in the present Application.

CERTIFICATION UNDER 37 C.F.R. § 1.8

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to Mail Stop Appeal Brief - Patents, Commissioner for Patents, Alexandria, VA 22313-1450, on March 4, 2004.


Signature

Toni Stanley
(Printed name of person certifying)

II. RELATED APPEALS AND INTERFERENCES

There are no appeals or interferences known to Appellant, the Appellant's legal representative, or assignee which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

III. STATUS OF CLAIMS

Claims 1-16 are pending in the Application.

Claims 1-16 stand rejected and are the subject of the instant appeal.

IV. STATUS OF AMENDMENTS

There are no amendments outstanding after the final rejection.

V. SUMMARY

The present invention implements a device configuration process using an ordered list with three methods of access: insertion at the top, removal from anywhere, and read (not removal) of the top item. The items kept on this list are the status codes or words for the activities that are currently in progress. When a new activity begins (step 302 in Fig. 3), its status code or word is inserted at the top of the list (303). Whenever an activity completes (304), its code or word is removed from the list (305) regardless of its location in the list, and in such a way as to preserve the order of the remaining entries in the list. Whenever the top entry in the list changes (whether through an insertion or removal), the single status display is updated to show the new top value (307).

The effect of this is that every newly-started activity (302) will have its status code or word displayed (303) for at least a short time, which gives the observer a sense of the progress of the activities. The code displayed (401) will always be for the latest-started activity that has not yet completed. If any activity is never going to complete, eventually all the other activities will complete, and their status codes or words will be removed from the list. This leaves only the "hung" activity's code on the list, and since it is the only entry, it will be the one displayed. Thus, the observer will know which activity failed to complete.

VI. ISSUES

1. Are claims 1-2, 9-10, 12-14 and 16 properly rejected under 35 U.S.C. § 103 as being obvious over *Mann* (U.S. Patent No. 6,295,534) in view of *Rathbun* (U.S. Patent No. 6,138,123)?

2. Are claims 3, 11 and 15 properly rejected under 35 U.S.C. § 103 as being obvious over *Mann* in view of *Rathbun* and further in view of *Dinwiddle, Jr. et al.* (U.S. Patent No. 5,113,522)?

VII. GROUPING OF CLAIMS

Claims 1, 9 and 13 form a first group.

Claims 2, 10 and 14 form a second group.

Claims 12 and 16 form a third group.

Claims 3, 11 and 15 form a fourth group.

These groups are to be separately considered.

The reasons why the claims of the respective groups and separately considered claims, if any, are separately patentable are found in the Argument in Section VIII. 37 C.F.R. § 1.192 (c)(7).

VIII. ARGUMENT

1. Claims 1-2, 9-10, 12-14 and 16 are not properly rejected under 35 U.S.C. § 103(a) as being unpatentable over *Mann* (U.S. Patent No. 6,295,534) in view of *Rathbun* (U.S. Patent No. 6,138,123).

A. *The Examiner has not provided any motivation for combining Mann with Rathbun*

A *prima facie* showing of obviousness requires the Examiner to establish, *inter alia*, that the prior art references teach or suggest, either alone or in

combination, all of the limitations of the claimed invention, and the Examiner must provide a motivation or suggestion to combine or modify the prior art references to make the claimed inventions. . M.P.E.P. §2142. . The motivation or suggestion to combine references must come from one of three possible sources: the nature of the problem to be solved, the teaching of the prior art and the knowledge of persons of ordinary skill in the art. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1458 (Fed. Cir. 1998). The showings must be clear and particular. *In re Lee*, 277 F.3d 1338, 1343, 61 U.S.P.Q.2d 1430, 1433-34 (Fed. Cir. 2002); *In re Kotzab*, 217 F.3d 1365, 1370, 55 U.S.P.Q.2d 1313, 1317 (Fed. Cir. 2000); *In re Dembiczak*, 50 U.S.P.Q.2d 1614, 1617 (Fed. Cir. 1999). Broad conclusory statements regarding the teachings of multiple references, standing alone, are not evidence. *Id.*

The Examiner's motivation for modifying *Mann* with *Rathbun* to track activities running in parallel is in order to "increase the speed and power of the system for maintenance of the ordered list of data." Paper No. 3, pages 4-5. This motivation is insufficient to support a *prima facie* case of obviousness, since it is merely the Examiner's subjective opinion.

Thus, there is no proper motivation to combine *Mann* with *Rathbun* as there is no suggestion or motivation supported by objective evidence in either *Mann* or *Rathbun*, or in their combination, or in the knowledge of those ordinarily skilled in the art, to combine the teaching of an apparatus for storing and modifying an ordered list suitable for use in data communications and other equipment, as taught in *Mann*, with the teaching of creating parallel data structures and associated maintenance programs, as taught in *Rathbun*.

More specifically, *Mann* teaches:

An apparatus for *maintaining an ordered list which can store any type and number of data items*. The ordered list can be implemented in hardware so as to enable fast, efficient maintenance of an ordered list of data. The data to be stored in the list is stored as a plurality of data cells each comprising any number of bits. The ordered list permits data to be read from, written to and deleted from the list. *Data is written to the list using a push operation and data is deleted from the listing*

using a pop operation. A controller, processor or other source, provides the cell address information for each read, push and pop operation. *The ordered list comprises a plurality of index units with each index unit comprising a 3 to 1 multiplexor whose output is connected to a data cell comprising a register or suitable data storage device.* The mux selects data to its output from either (1) input cell data (2) the data cell in the previous index unit or (3) the data cell in the next index unit. Individual operations of pushing, popping and reading are defined. In addition, a push operation and a pop operation can be performed simultaneously regardless of whether the push address is greater than, smaller than or equal to the pop address. Abstract.

Thus, *Mann* teaches an ordered list which can store any type of number of data items. *Mann* further teaches that the data to be stored in the ordered list is stored as a plurality of data cells, each comprising any number of bits.

Rathbun teaches:

Parallel data-structures distribute a given data set to system components by grouping the data set according to ranges. These ranges are sub-divided for distribution into parallel form. A given data value is located by its placement within an appropriate range; the ranges are located by their relationships to each other and the data set as a whole; thus, the ranges are related to each other, the order of the data set is maintained and access is gained to the data set by range. Each range may be distributed to multiple nodes; each node may be contained in a separate data-structure; each separate data-structure may be maintained on a separate system component. The result is a method of *creating and using parallel data-structures that may take a wide variety of forms and be used to control data distribution and the efficient distribution of system resources.* Abstract.

Thus, *Rathbun* teaches creating parallel data structures and associated maintenance programs.

The Examiner has not shown why a reference that teaches storing and modifying an ordered list suitable for use in data communications and other equipment, as taught in *Mann*, should be combined with the reference that teaches creating parallel data structures and associated maintenance programs, as taught in *Rathbun*, from either the nature of the problem to be solved, the teachings of the prior

art, or the knowledge of persons of ordinary skill in the art. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1458 (Fed. Cir. 1998).

The Examiner must submit objective evidence and not rely on his own subjective opinion in support of combining the reference that teaches storing and modifying an ordered list suitable for use in data communications and other equipment with a reference that teaches creating parallel data structures and associated maintenance programs. *In re Lee*, 61 U.S.P.Q.2d 1430, 1434 (Fed. Cir. 2002). Therefore, the Examiner has not presented a *prima facie* case of obviousness for rejecting claims 1-2, 9-10, 12-14 and 16.

The Examiner in Paper No. 8 cites *In re Bozek* for supporting the Examiner's position that he may support an obviousness rejection using common knowledge and common sense. The problem with this reliance, is that these assertions in *In re Bozek* have been overturned by *In re Lee*. The Examiner cannot ignore the requirement to provide objective evidence to support a motivation to combine references. Furthermore, the Examiner cannot rely upon unsupported assertions that limitations are notoriously well-known.

Furthermore, if the proposed modification or combination of the prior art would *change the principle of the operation of the prior art invention being modified*, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 U.S.P.Q. 349 (C.C.P.A. 1959). Further, if the proposed modification would *render the prior art invention being modified unsatisfactory for its intended purpose*, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 U.S.P.Q. 1125 (Fed. Cir. 1984). *Mann* teaches:

An apparatus for maintaining an ordered list which can store any type and number of data items. The ordered list can be implemented in hardware so as to enable fast, efficient maintenance of an ordered list of data. The data to be stored in the list is stored as a plurality of data cells each comprising any number of bits. The ordered list permits data to be read from, written to and deleted from the list. Data is written to the list using a push operation and data is deleted from the listing using

a pop operation. A controller, processor or other source, provides the cell address information for each read, push and pop operation. The ordered list comprises a plurality of index units with each index unit comprising a 3 to 1 multiplexor whose output is connected to a data cell comprising a register or suitable data storage device. The mux selects data to its output from either (1) input cell data (2) the data cell in the previous index unit or (3) the data cell in the next index unit. Individual operations of pushing, popping and reading are defined. In addition, a push operation and a pop operation can be performed simultaneously regardless of whether the push address is greater than, smaller than or equal to the pop address. Abstract.

A block diagram illustrating an ordered list constructed in accordance with a first embodiment of the present invention is shown in FIG. 4. *The ordered list, generally referenced 40, comprises a plurality of index units 44 stacked one on top another in linear (i.e. sequential) fashion and control circuitry 42. Each index unit 44 comprises a multiplexor 46 and a data cell 48. Column 3, lines 66-column 4, line 5.*

Thus, *Mann* teaches using the push or pop operation to insert or remove items from an ordered list where the information inserted or removed in the ordered list is stored in data cells which are in units stacked one on top of another in a linear fashion. *Rathbun*, on the other hand, teaches:

The problem presented and solved in the preferred embodiment is the *parallelizing of the list maintenance described above*. The essential functioning of the list remains the same in the parallel version of the data-structure. The Insert(x) and Remove(x) operations produce the same results. *However, on a single-processor system these operations are performed by one processor which can only Insert or Remove one element at a time; on a multi-processor system with P processors, the parallel version of the method can Insert and/or Remove P elements at a time as described below.*

Assuming a multi-processor system with 3 processors ($P=3$), and also assuming a list containing the elements {4,13,14,20,28,34,39,43,53,67,76,81} we have the following parallelized result: each processor keeps approximately one-third of the elements at any given time; each *processor may Insert(x) into its own sub-list at any given time (possibly sending the element x to one of the other processors for Insertion into one of the other sub-lists); each processor may Remove(x) from its sub-list at any time and may request that other processors attempt to locate element x in their sub-lists if x is not present in the original processor's sub-list; any other processor*

finding *x* in its sub-list then sends *x* to the original processor.
Column 2, lines 23-47.

Thus, *Rathbun* teaches inserting and removing data in an ordered list in a parallel fashion. *Rathbun* teaches that the insert and remove operations may be executed in parallel since the order list is comprised of sublists. By combining *Mann* with *Rathbun*, the push and pop, i.e., the insert and remove operation, would be executed in parallel. However, since the data is stored in the ordered list in a linear fashion, the push and pop operation would be inserting and removing the inappropriate data in the ordered list. This is, because the ordered list in *Mann* does not comprise sublists, *Mann* cannot execute the push or the push operations in parallel as required by *Rathbun*. Thus, by combining *Mann* with *Rathbun*, the *principle of operation* in *Mann* would change and subsequently render the operation of *Mann* to perform its purpose unsatisfactory.

Therefore, the Examiner has not presented a *prima facie* case of obviousness for rejecting claims 1-2, 9-10, 12-14 and 16.

B. *Mann and Rathbun, taken singly or in combination, do not teach or suggest the following limitations*

Mann and *Rathbun*, taken singly or in combination, do not teach or suggest "*whenever a new activity begins, inserting the new activity at a top of the list*" as recited in claim 1 and similarly in claims 9 and 13. *Mann* and *Rathbun*, taken singly or in combination, do not teach or suggest "*whenever an activity in the ordered list completes, removing the completed activity from the ordered list*" as recited in claim 1 and similarly in claims 9 and 13. The Examiner states:

Mann fails to explicitly teach inserting and removing whenever an activity begins and is finished, respectfully. However, it is common knowledge in the art that new items/activities to the data structure should be added or inserted to the ordered list. And likewise, it is common knowledge in the art that items/activities that are completed should be removed from the ordered list. The motivation for doing this would be for improving the control of data. If there are activities, they should be in the ordered list so that there could be fast, efficient maintenance of the ordered list of data. Paper No. 3, page 4.

Applicants respectfully traverse the implied assertion that whenever a new activity begins, the new activity is inserted at the top of the list or whenever an activity in the ordered list completes that the completed activity is removed from the ordered list is well known in the art. Applicants respectfully assert that the Examiner must provide a reference that supports the assertion that whenever a new activity begins, it is well known in the art to insert the new activity at the top of a list, pursuant to M.P.E.P. § 2144.03. Further, Applicants respectfully assert that the Examiner must provide a reference that supports the assertion that whenever an activity in the ordered list completes, it is well known in the art to remove the completed activity from the ordered list, pursuant to M.P.E.P. § 2141.03. Further, as stated above, the Examiner's motivation for modifying *Mann* to insert a new activity at the top of a list when a new activity begins and for modifying *Mann* to remove a complete activity from the ordered list when the activity in the ordered list completes is for improving the control of data. However, this motivation does not come from either the nature of the problem to be solved, the teaching in the prior art, or the knowledge of persons of ordinary skill in the art. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1458 (Fed. Cir. 1998). Instead, the Examiner is relying on his own subjective opinion in support of modifying *Mann* to insert a new activity at a top of a list when a new activity begins and for modifying *Mann* to remove a completed activity from the ordered list when the activity in the ordered list completes. The Examiner must submit objective evidence and not rely on his own subjective opinion in support of modifying *Mann* to insert a new activity at a top of a list when a new activity begins. *In re Lee*, 61 U.S.P.Q.2d 1430, 1434 (Fed. Cir. 2002). Further, the Examiner must submit objective evidence and not rely on his own subjective opinion in support of modifying *Mann* to remove a complete activity from the ordered list when the activity in the ordered list completes. *Id.*

Further, Applicants respectfully assert that the Examiner's use of Official Notice is inappropriate. The Examiner is only to use Official Notice for facts asserted to be well known or to be common knowledge in the art that are capable of instant and unquestionable demonstration as being well known. *In re Ahlert*, 424 Fd.2d

1088, 1091, 165 U.S.P.Q. 418, 42 (C.C.P.A. 1970); M.P.E.P. § 2144.03. In this case, the facts asserted to be well known or to be common knowledge in the art are not capable of instant and unquestionable demonstration as being well-known. Further, it is not appropriate for the Examiner to take Official Notice of facts without citing a prior art reference where the facts asserted to be well known are not capable of instant and unquestionable demonstration as being well known. *In re Ahlert*, 424 Fd.2d at 1091, 165 U.S.P.Q. 420-21; *See also In re Grose*, 592 Fd.2d 1161, 1167-68, 201 U.S.P.Q. 57, 63 (C.C.P.A. 1979). Further, it is never appropriate to rely solely on common knowledge in the art without evidentiary support in the record as a principle evidence upon which a rejection was based. *In re Zurko*, 258 F.3d 1379, 1385, 59 U.S.P.Q.2d 1693, 1697 (Fed. Cir. 2001). Accordingly, the Examiner has not presented a *prima facie* case of obviousness for rejecting claims 1-2, 9-10, 12-14 and 16.

Mann and *Rathbun*, taken singly or in combination, do not teach or suggest "*displaying the activity that is at the top of the list*" as recited in claim 1 and similarly in claims 9 and 13. The Examiner states:

Mann also fails to officially teach: displaying the activities that is at the top of the list. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include a feature of displaying the activity that was of interest, or in this particular case, the activity at the top of the list for *reasons of improving the usability for the user*. It would be convenient to the user if it had displayed the activity of interest. Paper No. 3, page 4.

The Examiner's motivation for modifying *Mann* to display the activity that is at the top of the list is not from either the nature of the problem to be solved, the teaching of the prior art, or the knowledge of persons of ordinary skill in the art. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1458 (Fed. Cir. 1998). Instead, the Examiner is simply relying on his own subjective opinion in support of modifying *Mann* to display an activity that is at the top of the list. The Examiner must submit objective evidence and not rely on his own subjective opinion in support of modifying *Mann* to display an activity that is at the top of the list. *In re Lee*, 61 U.S.P.Q.2d 1430, 1434 (Fed.

Cir. 2002). Further, if the Examiner is asserting that it is common knowledge to display the activity that is at the top of the list, Applicants respectfully assert that the Examiner must provide a reference that supports the assertion that whenever an activity in the ordered list completes, it is well known in the art to remove the completed activity from the ordered list pursuant to M.P.E.P. § 2141.03. Accordingly, the Examiner has not presented a *prima facie* case of obviousness for rejecting claims 1, 9 and 13. M.P.E.P. §2143.

For at least the above reasons, claims 1, 9 and 13 are patentable over *Mann* in view of *Rathbun*. Claims 2, 10, 12, 14 and 16 recite combinations of features including the above combinations, and thus they are patentable for at least the above reasons as well. Claims 2, 10, 12, 14 and 16 recite additional features, which, in combination with the features of the claims upon which they depend, are patentable over *Mann* in view of *Rathbun*.

For example, *Mann* and *Rathbun*, taken singly or in combination, do not teach or suggest "wherein the displaying step *displays a code pertaining to the latest-started activity that has not completed*" as recited in claim 2 and similarly in claims 10 and 14. The Examiner states:

Likewise the rejection stated in claim 1, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the feature of displaying the activity that was of interest, or in this particular case, the activity at the top of the list for the reason of improving the usability for the user. It would be convenient to the user if it had *displayed the activity of interest*. Paper No. 3, page 5.

The Examiner's motivation for modifying *Mann* to *display a code pertaining to the latest-started activity that has not completed* is not from either the nature of the problem to be solved, the teaching of the prior art, or the knowledge of persons of ordinary skill in the art. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1458 (Fed. Cir. 1998). Instead, the Examiner is simply relying on his own subjective opinion in support of modifying *Mann* to display a code pertaining to the latest-started activity that has not completed. The Examiner must submit objective evidence and not rely on his own subjective opinion in support of modifying *Mann* to *display a code pertaining to the*

latest-started activity that has not completed. In re Lee, 61 U.S.P.Q.2d 1430, 1434 (Fed. Cir. 2002). Further, if the Examiner is asserting that it is common knowledge to display a code pertaining to the latest-started activity that has not completed, Applicants respectfully assert that the Examiner must provide a reference that supports the assertion that whenever an activity in the ordered list completes, it is well known in the art to remove the completed activity from the ordered list pursuant to M.P.E.P. § 2141.03. Accordingly, the Examiner has not presented a *prima facie* case of obviousness for rejecting claims 2, 10 and 14. M.P.E.P. §2143.

Mann and Rathbun, taken singly or in combination, do not teach or suggest "circuitry for *determining if an activity that has completed is currently being displayed*; and *if the activity that has completed is currently being displayed, circuitry for displaying an activity that had previously been displayed*" as recited in claim 12 and similarly in claim 16. The Examiner states:

Likewise to the rejection stated in claim 1, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the feature of displaying the activity that was of interest, or in this particular case, the activity at the top of the list for the reason of improving the usability for the user. *It would be convenient to the user if it had displayed the activity of interest. It is also inherent that there are condition statements created and sent by the programmer that make the decisions on whether or not the activity is to be displayed.* Paper No. 3, pages 5-6.

The Examiner's motivation for modifying Mann to determine if an activity that has completed is currently being displayed and for modifying Mann to display an activity that had previously been displayed if the activity that has completed is currently being displayed is not from either the nature of the problem to be solved, the teaching of the prior art, or the knowledge of persons of ordinary skill in the art. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1458 (Fed. Cir. 1998). Instead, the Examiner is simply relying on his own subjective opinion in support of modifying Mann to determine if an activity that has completed is currently being displayed and for modifying Mann to display an activity that had previously been displayed if the activity that has completed is currently being displayed. The Examiner must submit objective

evidence and not rely on his own subjective opinion in support of modifying Mann to determine if an activity that has completed is currently being displayed and for modifying Mann to display an activity that had previously been displayed if the activity that has completed is currently being displayed. *In re Lee*, 61 U.S.P.Q.2d 1430, 1434 (Fed. Cir. 2002). Accordingly, the Examiner has not presented a *prima facie* case of obviousness for rejecting claims 12 and 16. M.P.E.P. §2143.

Further, Applicants respectfully traverse the assertion that it is inherent that Mann teaches circuitry for determining if an activity that has completed is currently being displayed; and if the activity that has been completed is currently being displayed, circuitry for displaying an activity that had previously been displayed. In relying upon the theory of inherency, the Examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art. *Ex parte Levy*, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Inter. 1990). That is, in order for the Examiner to establish inherency, the Examiner must provide extrinsic evidence that must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. *In re Robertson*, 169 F.3d 743, 745 (Fed. Cir. 1999). Inherency, however, may not be established by probabilities or possibilities. *Id.* The mere fact that a certain thing may result from a given set of circumstances is not sufficient. *Id.* Therefore, the Examiner must support the inherency argument with objective evidence meeting the above requirements. However, the Examiner has not supported his assertion that it is inherent in Mann that Mann teaches that above-cited claim limitations. Therefore, the Examiner has not presented a *prima facie* case of obviousness for rejecting claims 12 and 16. M.P.E.P. §2143.

2. Claims 3, 11 and 15 are not properly rejected under 35 U.S.C. § 103(a) as being unpatentable over Mann in view of Rathbun in further view of Dinwiddie et al. (U.S. Patent No. 5,113,522) (hereinafter "Dinwiddie").

A. The Examiner has not provided any motivation for combining Mann and Rathbun with Dinwiddie

As stated above, a *prima facie* showing of obviousness requires the Examiner to establish, *inter alia*, that the prior art references teach or suggest, either alone or in combination, all of the limitations of the claimed invention, and the Examiner must provide a motivation or suggestion to combine or modify the prior art reference to make the claimed inventions. . . M.P.E.P. §2142. The motivation or suggestion to combine references must come from one of three possible sources: the nature of the problem to be solved, the teaching of the prior art and the knowledge of persons of ordinary skill in the art. *In re Rouffet*, 47 U.S.P.Q.2d. 1453,1458 (Fed. Cir. 1998). The showings must be clear and particular. *In re Lee*, 277 F.3d 1338, 1343, 61 U.S.P.Q.2d 1430, 1433-34 (Fed. Cir. 2002); *In re Kotzab*, 217 F.3d 1365, 1370, 55 U.S.P.Q.2d 1313, 1317 (Fed. Cir. 2000); *In re Dembiczak*, 50 U.S.P.Q.2d. 1614, 1617 (Fed. Cir. 1999). Broad conclusory statements regarding the teaching of multiple references, standing alone, are not evidence. *Id.*

In order to reject under 35 U.S.C. § 103, therefore, the Examiner must provide a proper motivation for modifying the reference. *In re Rouffet*, 47 U.S.P.Q. 2d 1453, 1457-1458 (Fed. Cir. 1998); M.P.E.P. § 2142. The Examiner's motivation for modifying *Mann* to have a method for tracking activities where the activities are configurations of devices attached to the data processing system is to "increase the functionality of system by communicating with and utilizing other devices." Paper No. 3, page 6. This is merely the Examiner's subjective opinion.

Thus, there is no proper motivation to combine *Mann* and *Rathbun* with *Dinwiddie* as there is no suggestion or motivation in either *Mann*, *Rathbun* or *Dinwiddie*, or in their combination, or in the knowledge of those ordinarily skilled in the art to combine the teaching of storing and modifying the ordered list suitable for use in data communications and other equipment, as taught in *Mann*, with the teaching of creating parallel data structures and associated maintenance programs, as taught in *Rathbun*, with the teaching of merging two virtual operating systems into one physical system, as taught in *Dinwiddie*. As stated above, *Mann* teaches maintaining an ordered list which can store any type and number of data items. Further, *Mann* teaches using the push or pop operation to insert and remove

information in an ordered list where the ordered list comprises a plurality of index units, which includes cells to store items of data, stacked one on top of another in a linear fashion. As stated above, *Rathbun* teaches using the insert and remove operation to insert or remove data in an ordered list in a parallel fashion by having the ordered list include sublists. *Dinwiddie* teaches:

The functions of two virtual operating systems (e.g., S/370 VM, VSE or IX370 and S/88 OS) are merged into one physical system. Partner pairs of S/88 processors run the S/88 OS and handle the fault tolerant and single system image aspects of the system. One or more partner pairs of S/370 processors are coupled to corresponding S/88 processors directly and through the S/88 bus. Each S/370 processor is allocated from 1 to 16 megabytes of contiguous storage from the S/88 main storage. Each S/370 virtual operating system thinks its memory allocation starts at address 0, and it manages its memory through normal S/370 dynamic memory allocation and paging techniques. The S/370 is limit checked to prevent the S/370 from accessing S/88 memory space. The S/88 Operating System is the master over all system hardware and I/O devices. The S/88 processors access the S/370 address space in direct response to a S/88 application program so that the S/88 may move I/O data into the S/370 I/O buffers and process the S/370 I/O operations. The S/88 and S/370 peer processor pairs execute their respective Operating Systems in a single system environment without significant rewriting of either operating system. Neither operating system is aware of the other operating system nor the other processor pairs. Abstract.

Thus, *Dinwiddie* teaches two virtual operating systems executing a single system environment without significant rewriting of either virtual operating system.

The Examiner has not shown why one skilled in the art would combine the teaching of maintaining an ordered list that includes units stacked one on top of another in a linear fashion with the teaching of maintaining an ordered list comprised of sublists using parallel processing with the teaching of merging two virtual operating systems in a single system environment without significant rewriting of either virtual operating system from either the nature of the problem to be solved, the teaching in the prior art or the knowledge of persons of ordinary skill in the art. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1458 (Fed. Cir. 1998). The Examiner must submit **objective evidence** and not rely on his own subjective opinion in support of

combining *Mann*, which teaches maintaining an ordered list comprising a plurality of units stacked one on top of another in a linear fashion, with *Rathbun*, which teaches maintaining an ordered list comprised of sublists using parallel processing, with *Dinwiddie*, which teaches merging two virtual operating systems in a single system environment without significant rewriting of either virtual operating system. *In re Lee*, 61 U.S.P.Q.2d 1430, 1434 (Fed. Cir. 2002).

As stated above, the Examiner's motivation for modifying *Mann* to include a method for tracking activities where the activities are configurations of devices attached to the data processing system is to increase the functionality of a system by communicating with and utilizing other devices. The Examiner has not shown why *Mann* should be modified to have a method for tracking activities where the activities are configurations of devices attached to the data processing system from either the nature of the problem to be solved, the teaching in the prior art or the knowledge of persons of ordinary skill in the art. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1458 (Fed. Cir. 1998). Further, the Examiner has not shown why *Mann* should be modified to increase the functionality of the system by communicating with and utilizing other devices from either the nature of the problem to be solved, the teaching in the prior art, or the knowledge of persons of ordinary skill in the art. *Id.* Further, the Examiner must submit **objective evidence** and not rely on his own subjective opinion in support of modifying *Mann* to include a method of tracking activities where the activities are configurations of devices attached to the data processing system. *In re Lee*, 61 U.S.P.Q.2d 1430, 1434 (Fed. Cir. 2002). Further, the Examiner must submit **objective evidence** not relying on his own subjective opinion in support of modifying *Mann* to increase the functionality of the system by communicating with and utilizing other devices. *Id.* Therefore, the Examiner has not presented a *prima facie* case of obviousness for rejecting claims 3, 11 and 15.

B. *Mann*, *Rathbun* and *Dinwiddie*, taken singly or in combination, do not teach or suggest the following claim limitations

Mann, *Rathbun* and *Dinwiddie*, taken singly or in combination, do not teach or suggest, "wherein the *activities are configurations of devices attached to the data*

processing system" as recited in claim 3 and similarly in claims 11 and 15. The Examiner directs Applicants' attention to column 84, line 55 of *Dinwiddie* as teaching the above-cited claim limitation. Paper No. 3, page 6. Instead, *Dinwiddie* teaches I/O devices that are configured. However, *Dinwiddie* does not teach that the configured devices are *activities that are tracked*. Therefore, the Examiner has not presented a *prima facie* case of obviousness for rejecting claims 3, 11 and 15. M.P.E.P. § 2143.

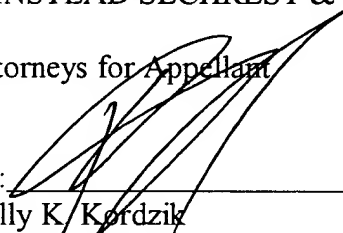
IX. CONCLUSION

As a result of the foregoing, it is asserted by Applicants that claims 1-3 and 9-16 in the Application are in condition for allowance, and Applicants respectfully request an allowance of such claims. Applicants respectfully request that the Examiner call Applicants' attorney at the below listed number if the Examiner believes that such a discussion would be helpful in resolving any remaining issues.

Respectfully submitted,

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APPENDIX

1 1. A method for tracking activities running in parallel in a data
2 processing system, comprising the steps of:

3 maintaining an ordered list of activities running in the system;
4 whenever a new activity begins, inserting the new activity at a top of the list;
5 whenever an activity in the ordered list completes, removing the completed
6 activity from the ordered list; and
7 displaying the activity that is at the top of the list.

1 2. The method as recited in claim 1, wherein the displaying step displays
2 a code pertaining to the latest-started activity that has not completed.

1 3. The method as recited in claim 1, wherein the activities are
2 configurations of devices attached to the data processing system.

1 4. A method for configuring devices attached to a data processing
2 system, comprising the steps of:

3 (a) determining if configuration of a device has begun;
4 (b) if configuration of a device has begun, inserting the configuration of the
5 device in a list and displaying a code associated with the device;
6 (c) determining if configuration of a device has completed;
7 (d) if configuration of a device has completed, removing the configuration of
8 the device from the list; and

1 (e) if the configuration of the device removed in step (d) had had its associated
2 code displayed, displaying code associated with a configuration of a device
3 immediately previous.

1 5. The method as recited in claim 4, further comprising the step of
2 returning to step (a) from step (b) if it is determined that configuration of a device has
3 begun.

1 6. The method as recited in claim 4, further comprising the step of
2 returning to step (a) if in step (c) it is determined that configuration of a device has
3 not completed.

1 7. The method as recited in claim 4, further comprising the step of
2 returning to step (a) if in step (e) the configuration of the device removed in step (d)
3 had not had its associated code displayed.

1 8. The method as recited in claim 4, further comprising the step of
2 returning to step (c) from step (e).

1 9. A data processing system comprising:
2 circuitry for maintaining an ordered list of activities running in the system;
3 whenever a new activity begins, circuitry for inserting the new activity at a top
4 of the list;
5 whenever an activity in the ordered list completes, circuitry for removing the
6 completed activity from the ordered list; and
7 circuitry for displaying the activity that is at the top of the list.

1 10. The system as recited in claim 9, wherein the displaying circuitry
2 displays a code pertaining to the latest-started activity that has not completed.

1 11. The system as recited in claim 9, wherein the activities are
2 configurations of devices attached to the data processing system.

1 12. The system as recited in claim 9, wherein the displaying circuitry
2 further comprises:

3 circuitry for determining if an activity that has completed is currently being
4 displayed; and

5 if the activity that has completed is currently being displayed, circuitry for
6 displaying an activity that had previously been displayed.

1 13. A computer program product adaptable for storage on a computer
2 readable medium, comprising a computer program operable for performing the
3 following steps:

4 maintaining an ordered list of activities running in a data processing system;

5 whenever a new activity begins, inserting the new activity at a top of the list;

6 whenever an activity in the ordered list completes, removing the completed
7 activity from the ordered list; and

8 displaying the activity that is at the top of the list.

1 14. The program as recited in claim 13, wherein the displaying step
2 displays a code pertaining to the latest-started activity that has not completed.

1 15. The program as recited in claim 13, wherein the activities are
2 configurations of devices attached to the data processing system.

1 16. The program as recited in claim 13, wherein the displaying step further
2 comprises the steps of:
3 determining if an activity that has completed is currently being displayed; and
4 if the activity that has completed is currently being displayed, displaying an
5 activity that had previously been displayed.

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